

Chemical Reactions Resit

1. Using the ion table write the following formulae:

zinc sulfide _____

potassium oxide _____

calcium nitrate _____

sodium carbonate _____

2. What do these formulae mean?

LiCl _____

NH₄OH _____

CaSO₄ _____

Mg₃(PO₄)₂ _____

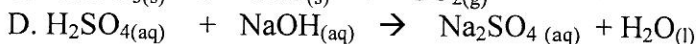
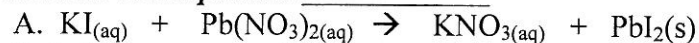
3. Below are 4 reactions. Which letter represents:

combustion _____

neutralization _____

precipitation _____

thermal decomposition _____



4. Which of these are observations? Circle them. You can choose more than 1.

A. Bubbles of gas appeared in the limewater.

B. The reaction produced hydrogen gas which burned with a pop.

C. A vivid yellow precipitate of lead iodide formed.

D. A black solid was left in the test tube..

E. A brown gas was given off which must be nitrogen dioxide.

5. Write a word equation for the burning of magnesium in air.

_____ + _____ \rightarrow _____

6. Say whether the following are physical or chemical changes.

Curtains fading in the sun _____

Burning magnesium in oxygen _____

Heating up a stove element _____

Combining baking soda and vinegar to give off a gas _____

7. Terms:

Match up List A with List B.

List A

1. combustion matches letter _____
2. precipitation matches letter _____
3. solution matches letter _____
4. thermal decomposition matches _____
5. soluble matches letter _____
6. neutralization matches _____
7. solvent matches letter _____
8. chemical change matches letter _____
9. physical change matches letter _____
10. solute matches letter _____

LIST B

- A. The solid part of a solution.
- B. When a H^+ ion reacts with an OH^- to form water.
- C. When new different substances form
- D. When a solid will dissolve in a liquid, the solid is said to be
- E. When a chemical is heated and breaks down to form different substances
- F. a change of state or process that is easily . reversible.
- G. When two solutions are mixed, sometimes an insoluble solid forms.
- H. Burning in Oxygen
- I. The liquid part of a solution.
- J. A solid dissolved in a liquid forms a.....

8. What forms when these two solutions are mixed? Is there a precipitate? If so, which one?

Help: Solubility rules: All nitrates are soluble

All chlorides are soluble except silver chloride and lead chloride

All bromides are soluble except silver bromide and lead bromide

All iodides are soluble except silver iodide and lead iodide

All sulfates are soluble except barium sulphate and lead sulfate

All compounds of sodium, lithium, potassium and ammonium are soluble.

The following are **Insoluble and will form precipitates** when formed as a result of two solutions mixing.

Most carbonates $(CO_3)^{2-}$ are insoluble except sodium carbonate, potassium carbonate, lithium

Carbonate are soluble

Most hydroxides are insoluble except for sodium, lithium, potassium and ammonium hydroxide who

are all soluble.

Examples for You to do:

- a. calcium nitrate + potassium iodide →
- b. sodium hydroxide + copper sulfate →
- c. copper nitrate and sodium carbonate →
- d. silver nitrate and sodium chloride →